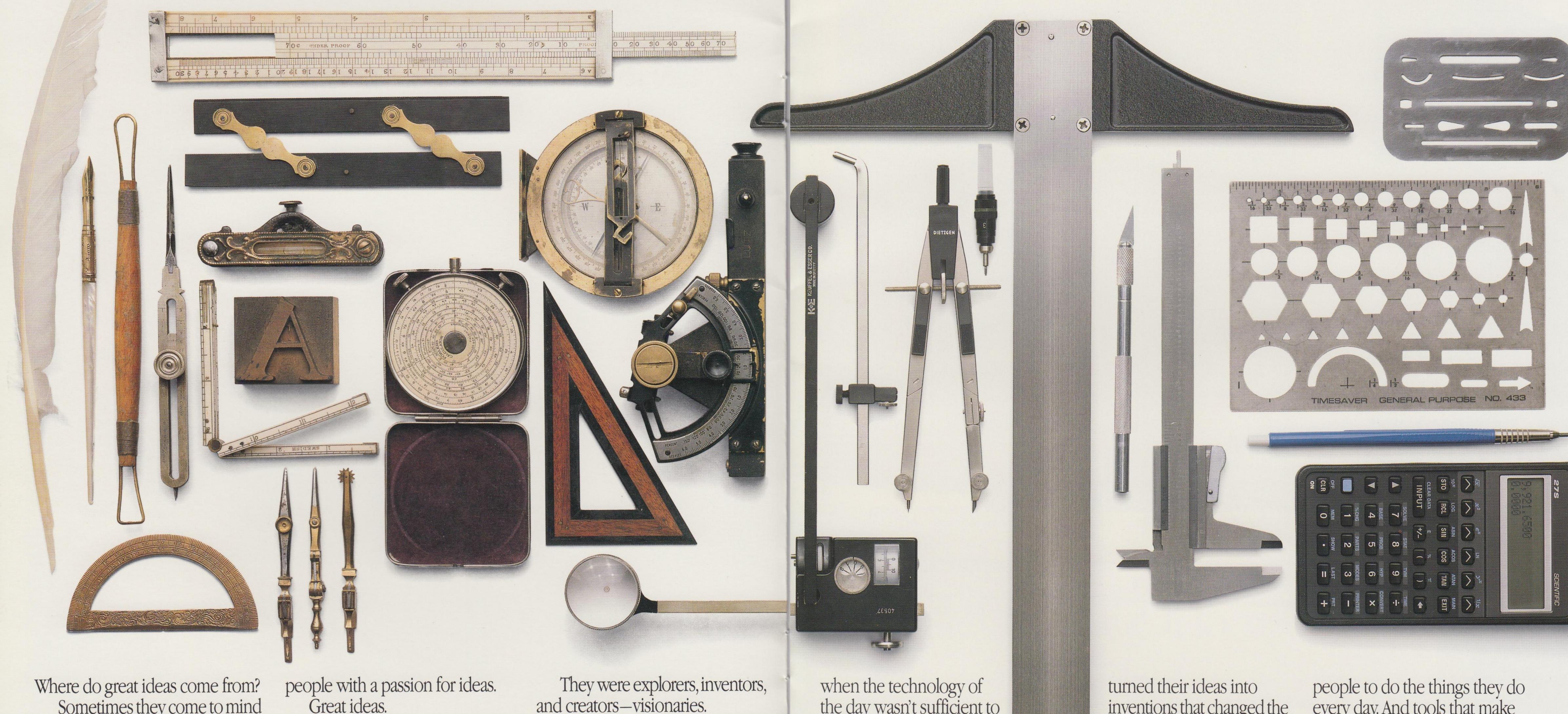


# Throughout history, there's never been a shortage of good ideas.



## The challenge has been to create to ols that turn inspiration into reality.



Sometimes they come to mind suddenly, in the middle of the night. Sometimes they are the result of countless hours of research by a team of dedicated experts.

The individuals shown on the cover of this brochure are

They're people who—through sheer inspiration and, more often than not, perspiration—came up with ideas that, in the words of economist John Maynard Keynes, "shape the course of history."

What separates these people from everyone else is that they didn't stop with just an idea; they went far beyond it. Using the tools available to them, they turned their ideas into reality. And,

the day wasn't sufficient to make their ideas fly, they often designed the necessary tools themselves.

As far back in history as you can go, that's been the pattern. People have

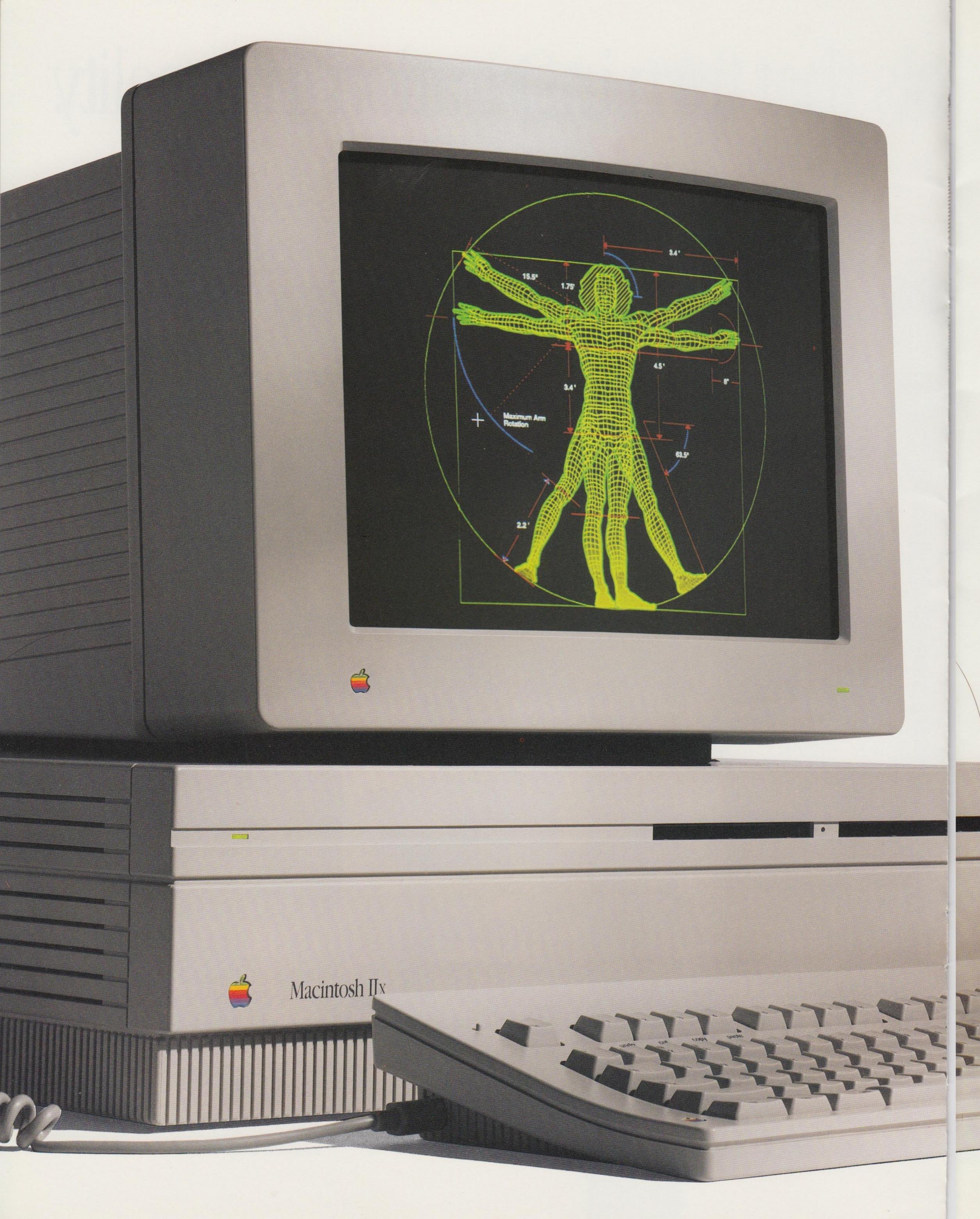
inventions that changed the way we live, work, travel, and communicate.

Evolutionary ideas. And revolutionary ones.

They've created tools that make it easier for

every day. And tools that make it possible for people to do things they've never done before.

These tools allow us to explore new ways to create, think, learn, and work. And to turn our attention to even bigger and better ideas.



### Macintosh: What we've been leading up to.

In 1984, we introduced a very good idea: a personal computer that worked the way people work -and that extended the capabilities of the people using it.

We called it Macintosh®

Macintosh wasn't like any other personal computer people had ever seen. And it wasn't like any other personal computer they had ever used.

The Apple® Macintosh offers you an intuitive way to work—it's a tool that builds on the experience you already have, and on the tools you're used to working with. It enables you to try out new ideas and explore new possibilities and to extend your reach into other environments.

> Macintosh also makes computing an experience that people enjoy.

With Macintosh, we introduced the concept of

direct control and manipulation. For example, you can point to items on the screen and easily move them around, resize objects,

and make many other deand make many other design revisions—and see the results of your actions in real time—all with a couple of clicks of the mouse.

In other words, Macintosh is the first personal computer that encourages people to experiment with their ideas.

Macintosh also stands out because of the elegant way it fits in with the way people work.

It offers unique design features—such as a "desktop" with icons, or pictures, of familiar objects people see and use every day (documents, file folders, a trash can, a calculator, and so on). And it makes computer and application functions available through consistent, easy-to-use

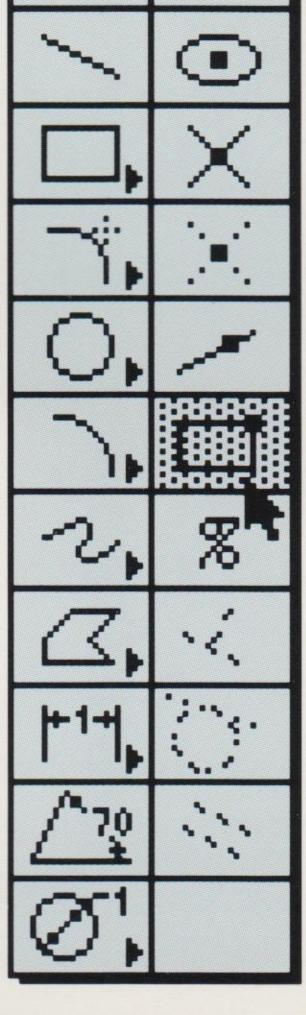
menus with commands in plain English: open, copy, paste, print, save, quit, and so on.

With Macintosh, you can con-

centrate on the task that needs to be done whether it's drafting a memo, creating a simple drawing, or building a complex shaded model instead of concentrating on the tool you're using to perform it.

Together, these features can reduce training time from several weeks to just a few hours. They also allow people to be more productive—and more satisfied with the work they do—in a much shorter time\*

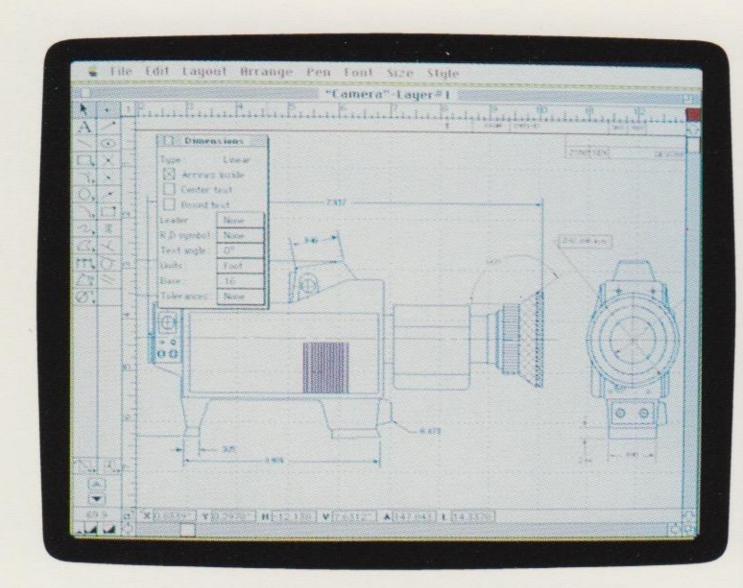
All of which means that for anyone who wants to follow a dream—and make that dream reality— Macintosh can help lead



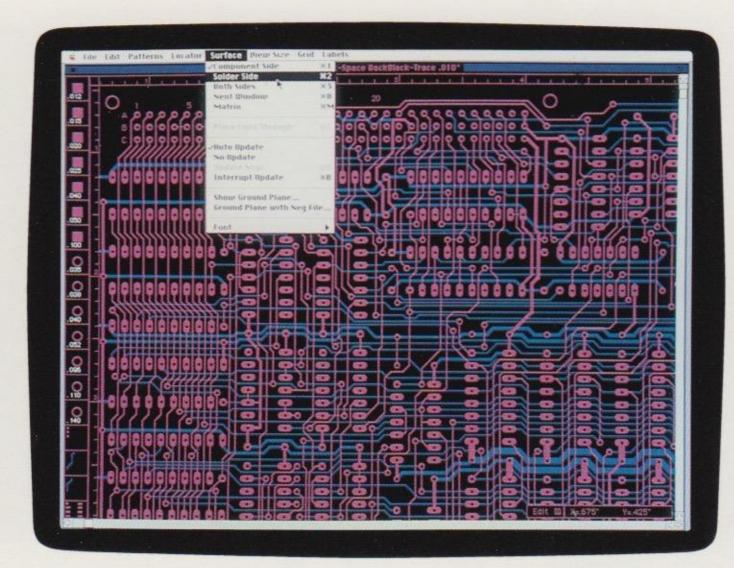
Many Macintosh applications feature palettes (such as this one from Claris CAD) with tools that resemble the tools you use at your desk or the way. drawing table.



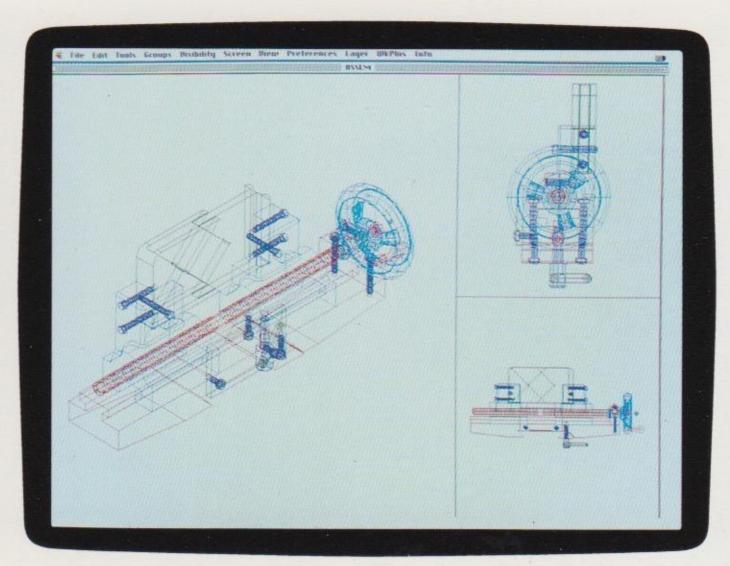
\*The increased productivity of people who use Macintosh computers has been documented in several studies, including Macintosh or MS-DOS?, a study conducted by Diagnostic Research, Inc. For a free copy of this report, please call 1-800-446-3000, ext. 475.



Claris CAD from Claris Corporation is a full-featured, two-dimensional design and drafting package. It uses three basic concepts to create construction, alignment, and dimensioning tools.



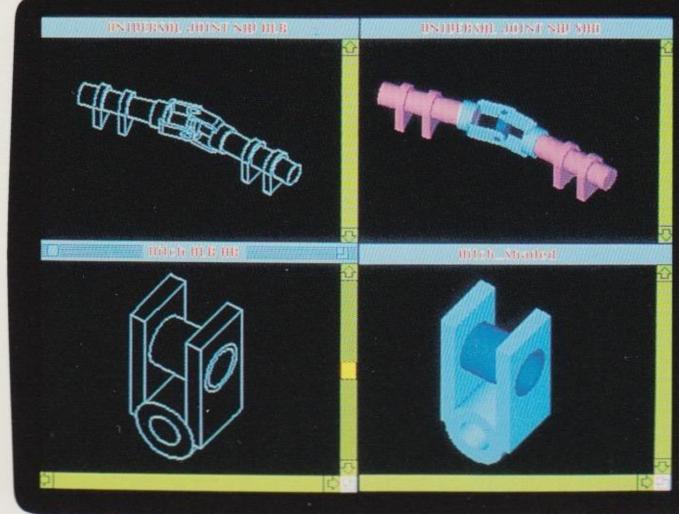
For printed circuit board design, Professional System from Douglas CAD/CAM provides tools that help automate much of the process-including schematic capture, logic simulation, and printed circuit board layout.



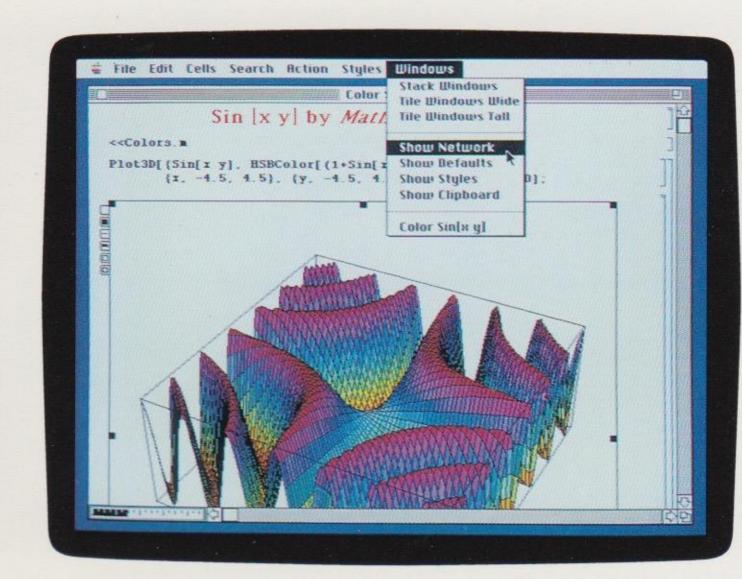
MacBravo! from Schlumberger CAD/CAM has been task-optimized for mechanical engineers. Changes made in a three-dimensional model will automatically update the two-dimensional model.



Architrion II from Gimeor, Inc., is an integrated 2-D and 3-D architectural package that can be used at any point in the design cycle, from concept through detailed drawing.



IN-CAD from Infinite Graphics is a true solid-modeling program that features the ability to take three-dimensional objects and "add" or "subtract" other objects to create a new object.



Mathematica from Wolfram Research Inc. is an intuitive visualization tool that aids in the understanding and solving of both simple and complex mathematical equations.

### It's one thing to get an idea off the drawing board.

What's the first thing you do when you realize that you've just come up with a remarkably good idea?

Write it down? Sketch it on a napkin?

Try desperately to keep it in your mind—just as you envisioned it—until you get to the office?

Basically, you do anything you can to capture the idea in a form that will allow you to refine it at a later time.

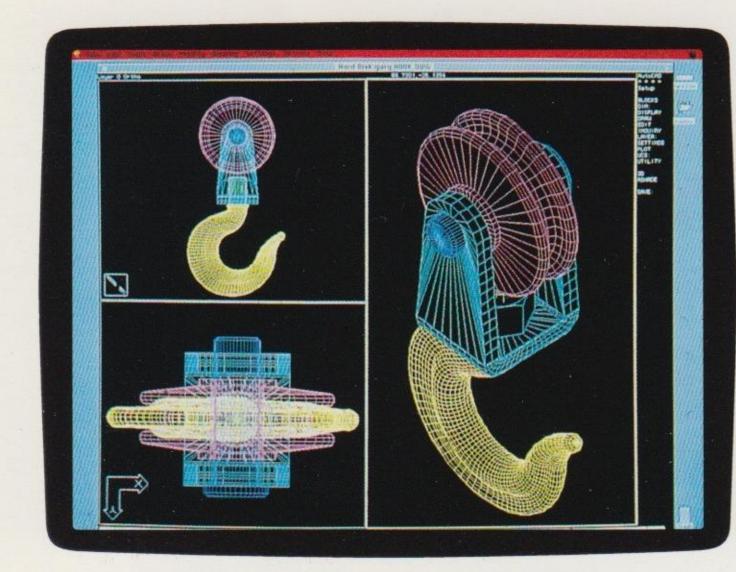
And that's where a Macintosh computer can help.

Because no matter what field you're in—whether it's mechanical engineering, industrial design, architecture, or drafting— Macintosh provides the tools that make it easier to work with and perfect an idea.

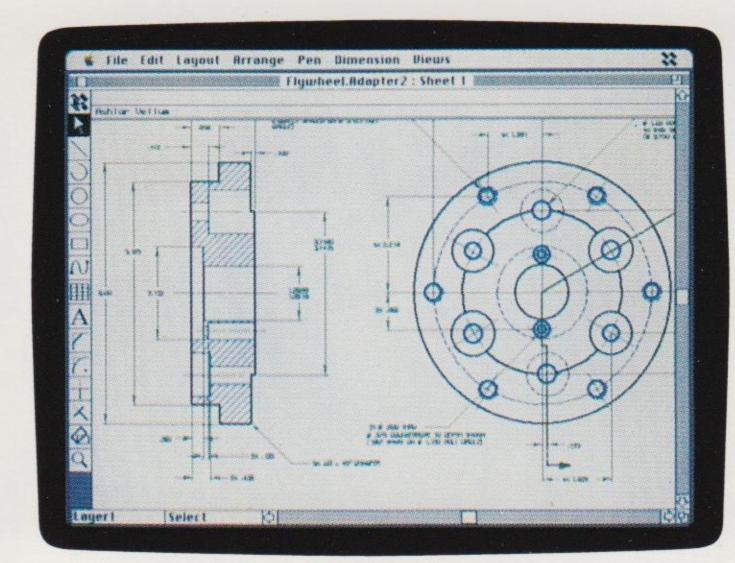
And to make it reality. Today, a full spectrum of appli-

cations is available to help you get from concept to completion. From comparatively simple, low-cost drawing programs to sophisticated, industry-standard computer-aided design programs, each one is designed to give you the ability to develop your ideas in completely new ways.

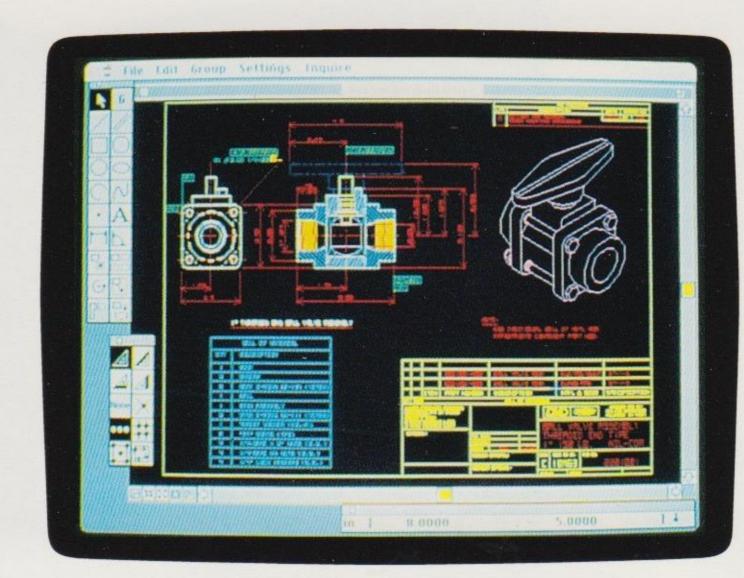
And, like all Macintosh applications, they share a consistent user interface—pull-down menus,



An industry-standard CAD package, AutoCAD from Autodesk offers some of the most advanced CAD features available. Files created in Macintosh AutoCAD are also binary compatible with other AutoCAD programs.



Vellum from Ashlar Corporation is the first design package to draw on the concepts of expert systems, establishing a new standard for intuitive design and drafting. It also offers integrated parametric design capabilities.



VersaCAD/Macintosh Edition offers many advanced features, including the ability to automatically generate a bill of materials. In addition, it utilizes Apple's HyperCard® software to facilitate access to its built-in database.



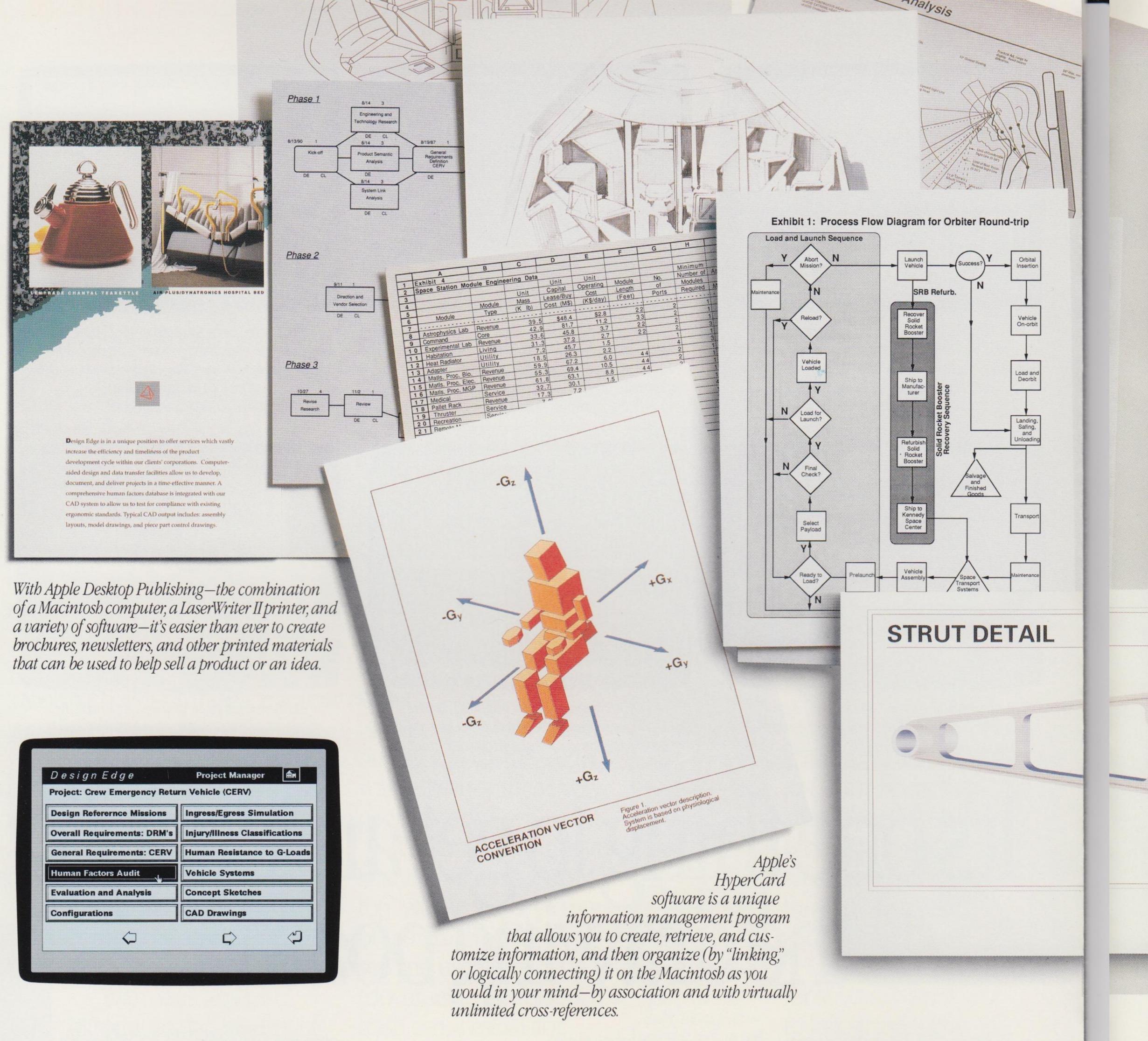
For three-dimensional architectural design, DynaPerspective from Dynaware Corporation offers a wide range of features, including walkthrough and animation capabilities.

icons that represent the tools you use every day, familiar commands for executing similar tasks, and the ability to "cut" and "paste" text and graphics between applications. This consistency means that much of what you learn from using one program can be applied when you use other programs.

And that makes it possible for you to draw not only on the capabilities of Macintosh, but, more important, on your own experience.

MicroStation Mac from Intergraph Corporation is a fully integrated 2-D and 3-D software package that can be used to create complex wire frames, bidden-line removals, and renderings. It also features comprehensive database capabilities.



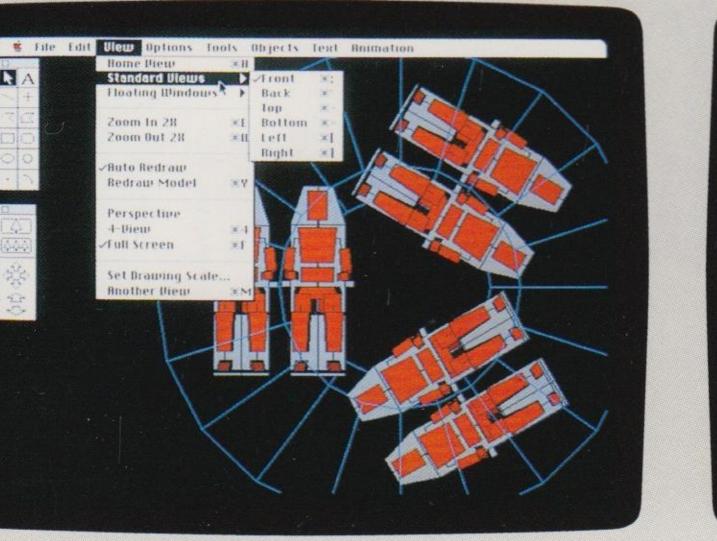


with a great idea, that task often and other skeptics. pales in comparison to the challenge of selling it to the rest of the world.

"build a better mousetrap, the at every step in the process world will beat a path to your door." whether it's writing a memo,

More than likely, though, the producing a series of design person who made that claim never iterations, preparing the initial had to sell an idea to a roomful presentation, or putting the

The Macintosh SE, shown here with the Apple Keyboard, can be con-figured with several memory and hard disk options.



Design · Edge

Strut Detail Design Allowances

Date 5/2/90

Scale: 1" × 4"

Approved

Build a design.

Design a revision

Revise the drawing.

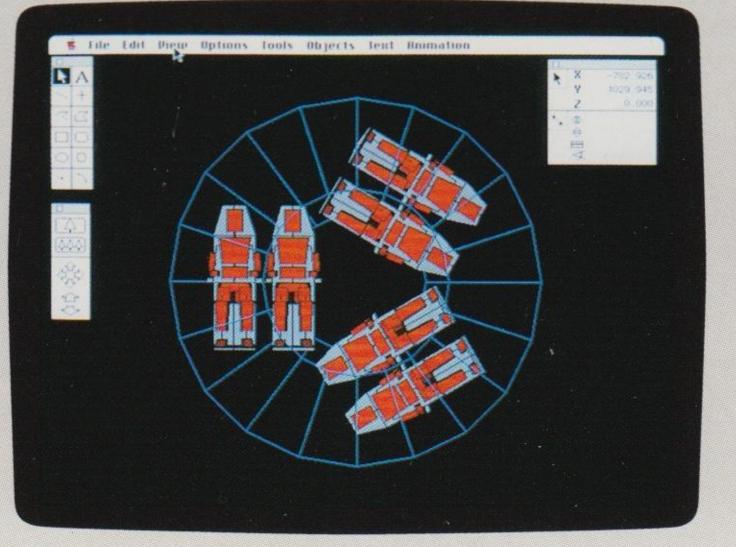
Present the proposal.

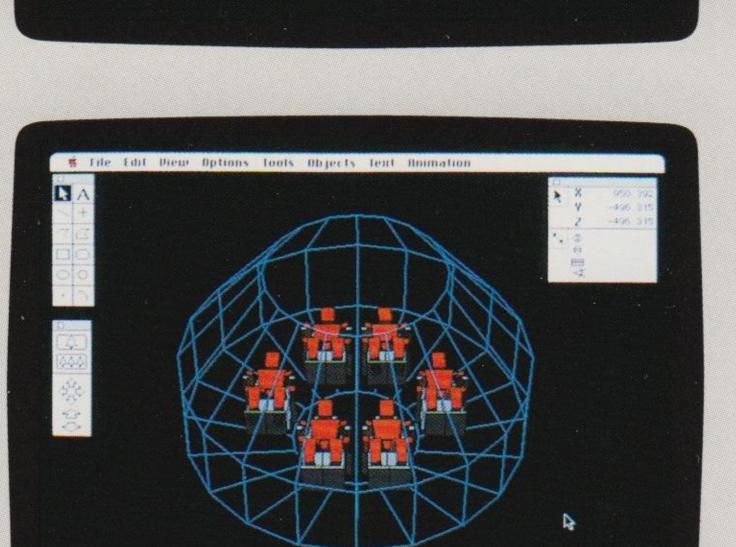
Propose a schedule.

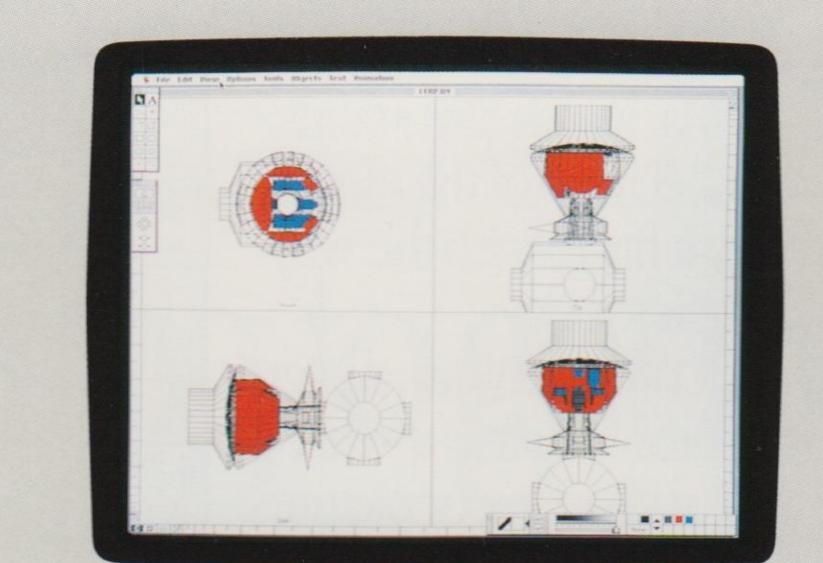
Meet the deadline.

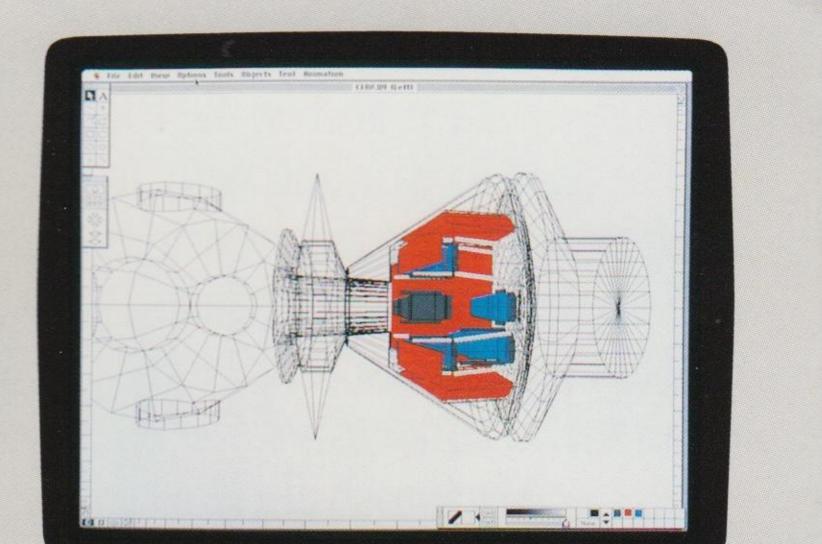
Draw up a presentation.

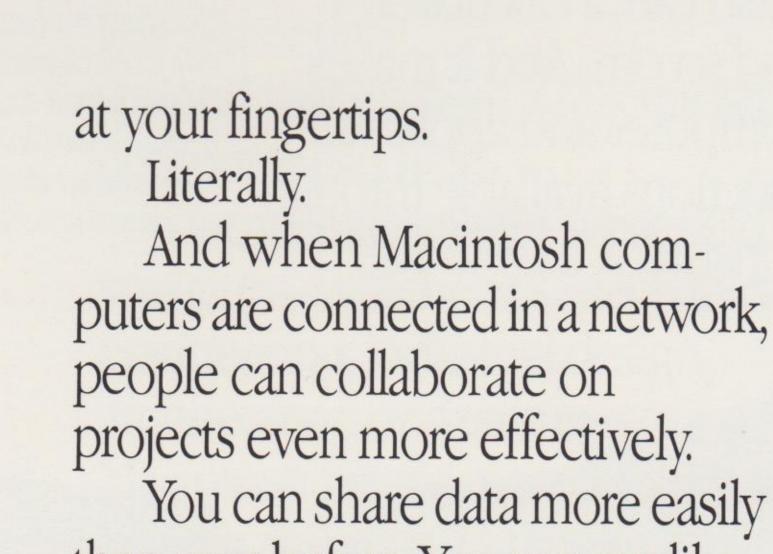
Schedule the meetings.











You can share data more easily documentation. than ever before. You can readily
exchange messages via electronic

The versatile, high-performance
Macintosh Ilcx can be configured
with a range of hard disks and memthan ever before. You can readily And, finally, explain what it all means to the bottom line.

With Macintosh, it's all there

mail. And you can work cooperatively with other people on a

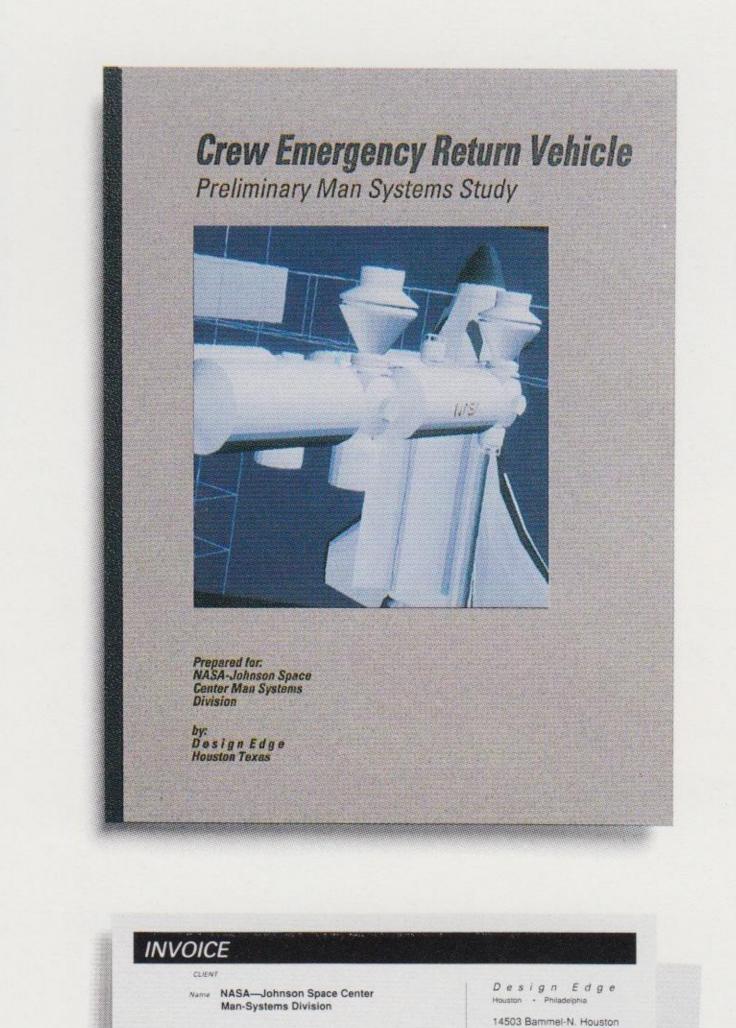
work coopchoice of color and blackand-white monitors.

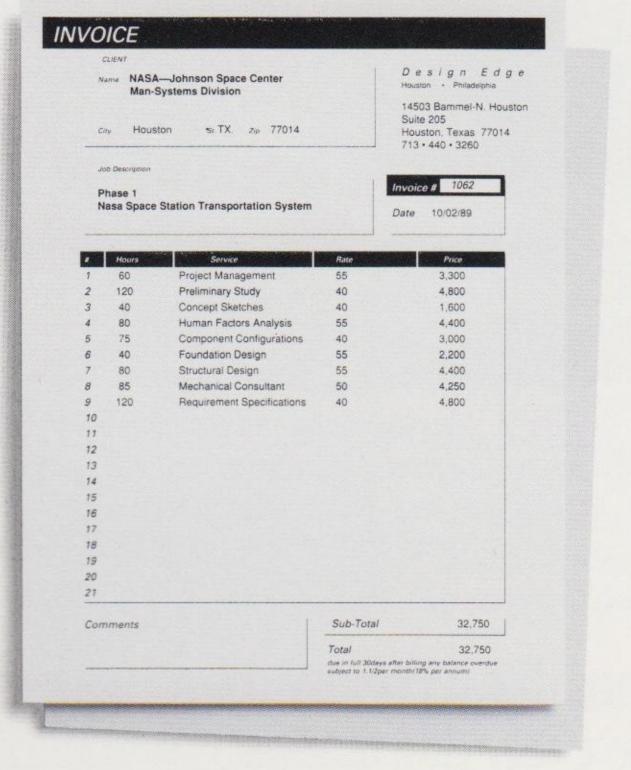
project in ways that give everyone the opportunity to contribute-And when Macintosh com- whether it's during the initial preputers are connected in a network, sentation of the idea, the actual design work, or the preparation of the technical



Every Apple Macintosh com- network that best suits your appli- and facilitywide requirements. puter also has the "plug and play" cation. It can run over everything Macintosh computers can networking capabilities provided from low-cost LocalTalk™cabling even be integrated with other by the AppleTalk® network systems to coax to Token-Ring, and more—types of computer systems (includtem. Two things make AppleTalk and it delivers the highest level ing MS-DOS, VAX,™ and UNIX) unique: how easy it is to use, and of performance that the selected and in other types of network small, as the network for a work- level of connectivity and comgroup, and can easily be expanded patibility makes it possible to accommodate departmentwide for Macintosh users to access

environments (Token-Ring, Ethernet, NFS, and TCP/IP). This





As the most expandable Macintosh computer, the high-performance Macintosh IIx can accommodate a variety of options, including large-screen monitors, internal communi-cations cards,

drawings and other files stored on Macintosh so popular with proa mainframe, minicomputer, or fessionals in all fields of design, another personal computer, make science, construction, engineering, revisions to the files from their and architecture. Because one Macintosh applications, and store system—Macintosh—can help them on the server—in a file for—them do nearly all of the things mat that's compatible with other they need to get done. systems on the network.

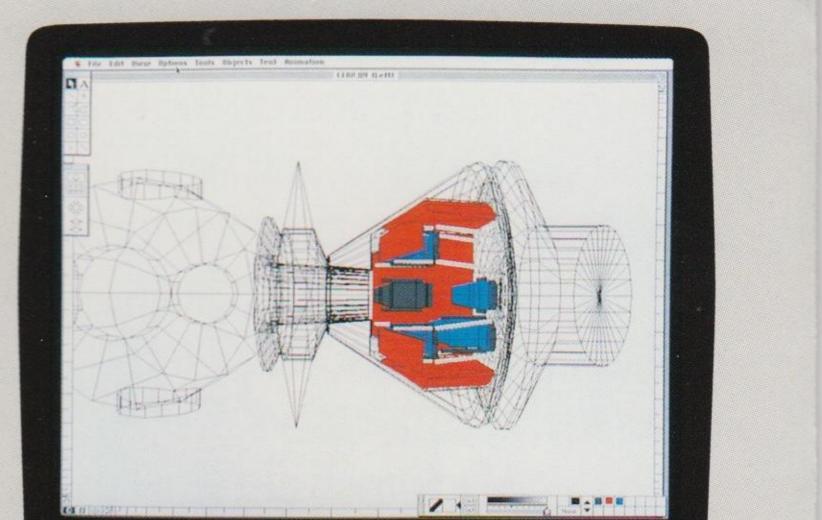
These are just a few of the design features and software innovations that have made

After you've had a chance to work with a Macintosh, you may find that it's all you need to get your ideas off the ground.

All documents on this page courtesy of Design Edge Inc.

As difficult as it is to come up of clients, managers, accountants, finishing touches on the technical

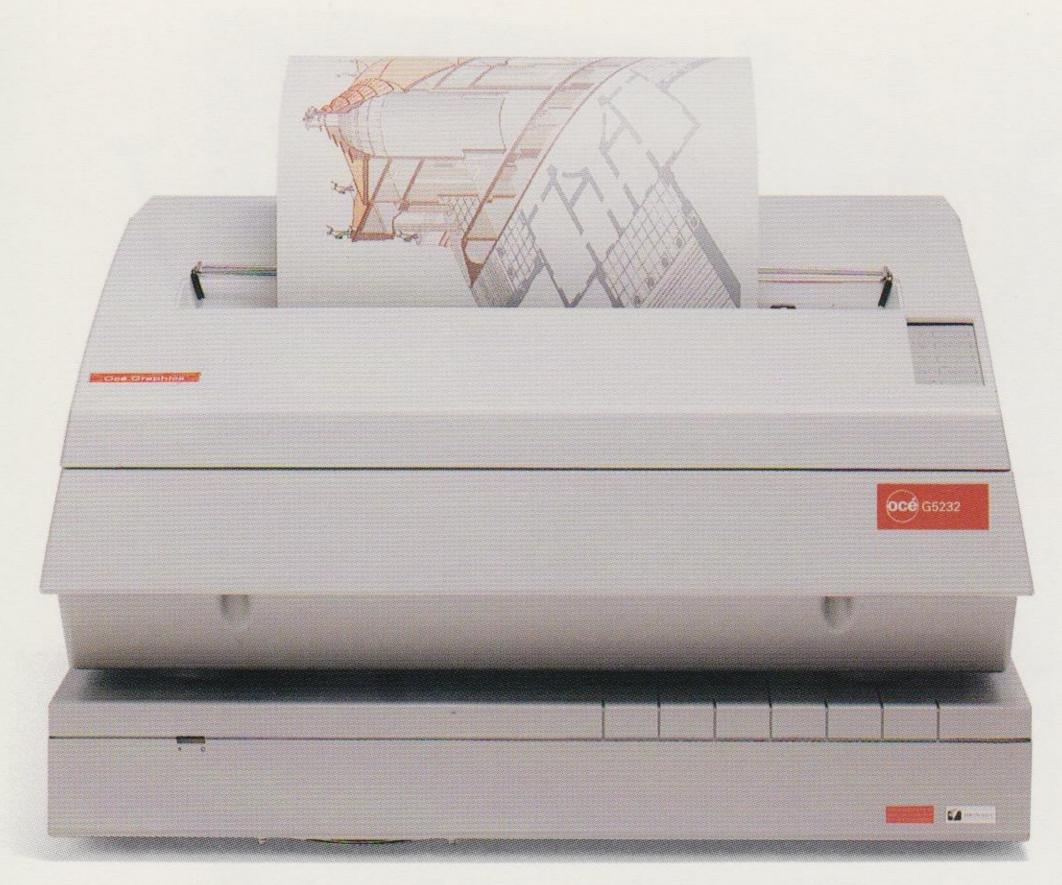
With a Macintosh, accomplish- What makes Macintosh unique ing your goals can be much easier. is its integrated design. With a Because Macintosh can help you single Macintosh system, you can An old adage says that if you to be more concise and persuasive do virtually everything you need to do. Sketch a building.



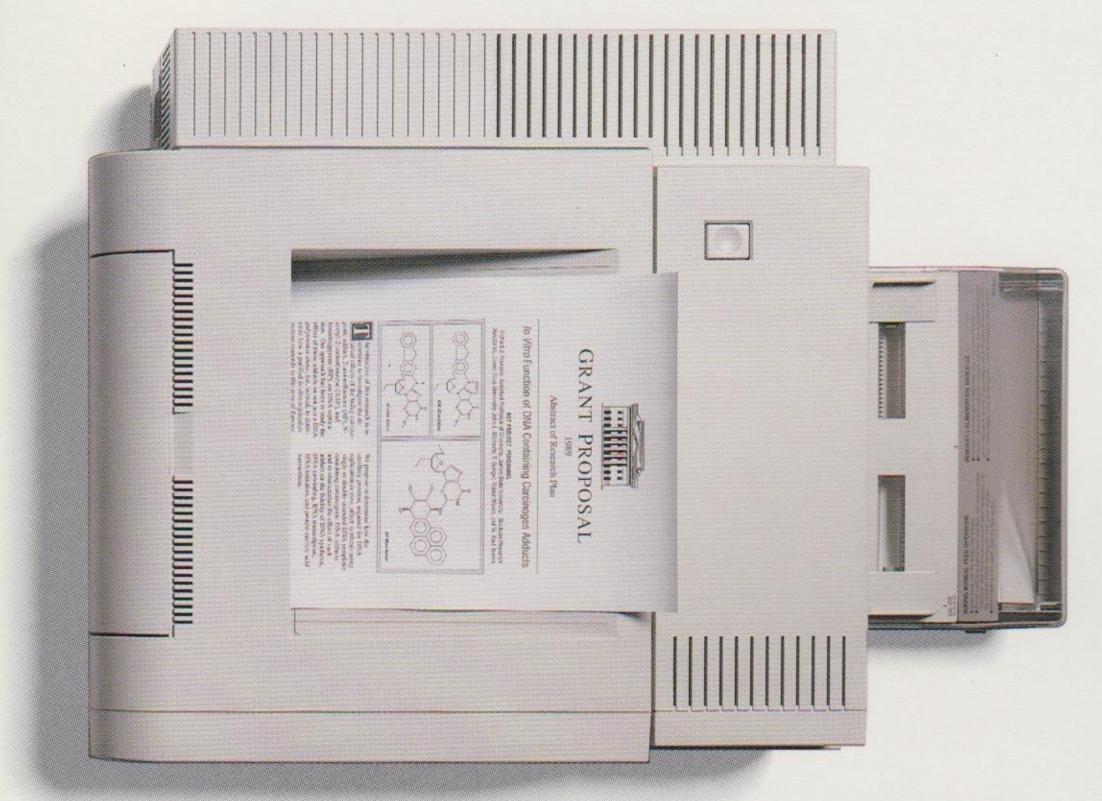
AppleTalk offers you the

how easily you can build a flexible, network can support. Which means that AppleTalk can start

flexibility of using the type of



The Océ Graphics G5232 Color PostScript® printer produces highquality images using the Pantone color-matching system. It prints on paper or transparent film up to 11 by 17 inches.



Apple's expandable LaserWriter IInTx printer produces Macintosh images of near typeset quality on paper and transparent film. It can be shared via the AppleTalk network system.





The AppleCD SC™drive offers a cost-effective way to access information. Each 550-megabyte CD-ROM disc can hold the equivalent of 270,000 typewritten pages.



The Apple Hard Disk 80SC is an 80-megabyte SCSI hard disk drive that can store the equivalent of 40,000 pages of information and access data up to six times faster than a 3.5-inch floppy disk drive.

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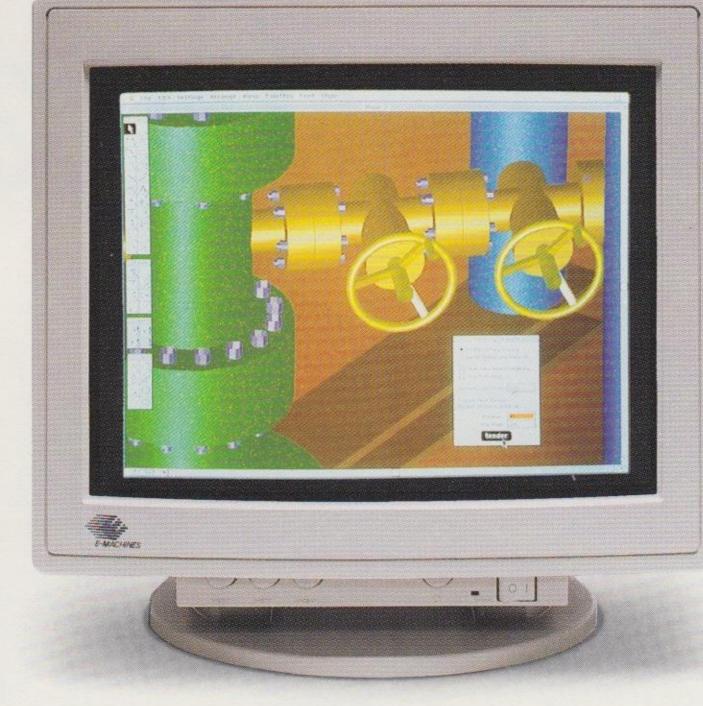
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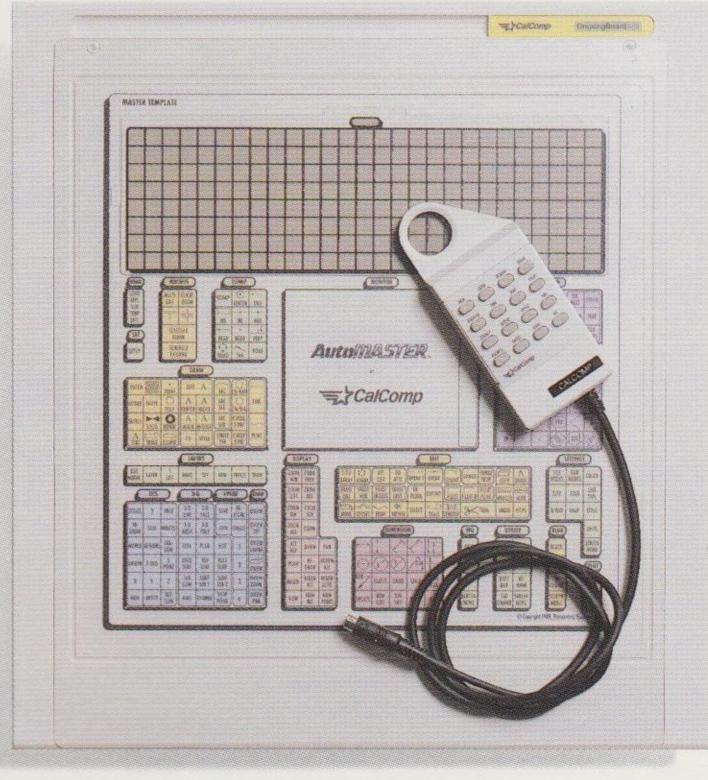
The E-Machines monitor presents high-quality color images with precision, and features a high vertical refresh rate that results in a very stable display.



The SuperMac 19-inch color monitor, used in conjunction with an 8-bit or 24-bit Spectrum color graphics card, displays up to 256 colors.



Using the Apple Scanner, you can import graphics, drawings, and photos into a variety of software applications, where you can use them as they are, or enlarge, shrink, trace, and even color them.



The CalComp DrawingBoard is an advanced digitizer that is available in a range of sizes. It comes with a stylus or a pen and can be used to create original drawings or trace existing ones.

As you're well aware, the job isn't complete until the paperwork is done. In the process of evolving and selling an idea, it may seem as though all you do is try to make paper work—whether it's a lettersize page or an E-size drawing.

Today, Macintosh computers

can work with all kinds of output devices, from our family of highresolution Apple LaserWriter® printers to high-quality color printers and film recorders to highperformance multicolor plotters.

But with computers, as with anything else in business, you get

out of something only what you put into it. That's why, in addition to output devices, Macintosh computers are designed to work with a wide range of input devices—everything from advanced color scanners to high-resolution digitizers.

### Different forms for different functions.

Between the input and output stages is the place where designers, engineers, and architects spend most of their time: working at the computer screen. With Macintosh computers, you can have your choice of a wide range of monitors: high-resolution color monitors

in a selection of sizes from 13 inches to 21 inches, as well as highquality gray-scale monitors in sizes from 12 inches to 21 inches.

But perhaps the best part is that all these devices feature the highly integrated, "plug and play" compatibility that characterizes virtually all Macintoshrelated products. Which goes to show that with Macintosh computers and the right combination of hardware, you'll be able to work in ways you never could before.

And that can make all the difference in the world.

# Great ideas can take many forms.

I'm responsible for managing the development of container systems for the manufacture of frozen antibiotics. This involves coordinating, scheduling, and budgeting the efforts of everyone from engineers to truck drivers.

With such a massive effort, I use the Macintosh to handle the incredible amount of information it takes for us to deliver the drugs that help save people's lives.

James Marks, Program Manager, Parenterals Division, Baxter Healthcare, Round Lake, IL

When I arrived, the dean gave me a quartermillion-dollar budget. I spent it filling a lab with Macintosh computers.

My students find they're capable of doing far more than they ever dreamed possible—in far less time. At first they use Macintosh because their professor loves it, then they grow to love it themselves.

Mike Sherman, **Associate Professor** of Landscape Architecture, Rutgers University, New Brunswick, NJ

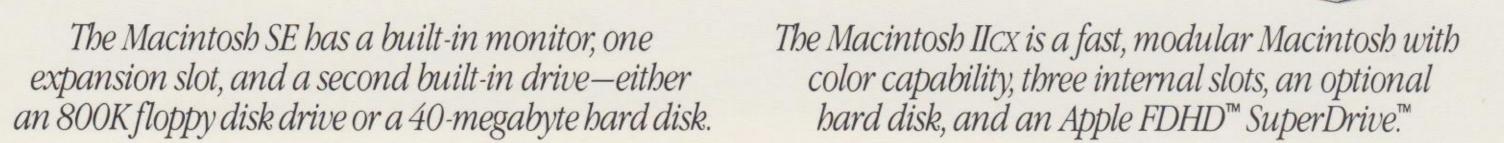
We do 90 to 95 percent of the work on our industrial design projects with our Macintosh computers.

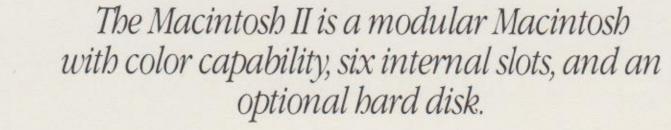
We usually start by turning out a proposal and a schedule, and then, once they're approved, we do layout drawings and 3-D color renderings. Sometimes we even animate them to show clients how the product will move or function. Finally, when the renderings are approved, we turn out industrial design control drawings that we send

to the manufacturing engineers.

Liz Walters, Vice President of Design,







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Four years ago, I had a PC on my desk, but I wanted a tool I could do real work with, so I brought in my Macintosh from home.

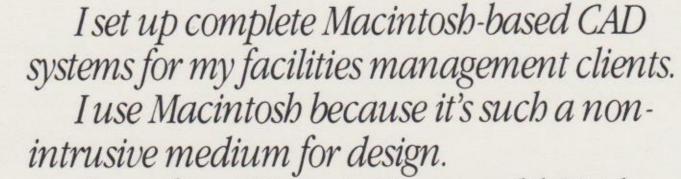
It has proved to be a serious CAD engineering tool. I recently used it to redesign the latching mechanism for the modular shielding mount on our product, a medical linear accelerator product used for x-ray therapy.

The Macintosh IIx is a fast, modular Macintosh

with color capability, six internal slots, an

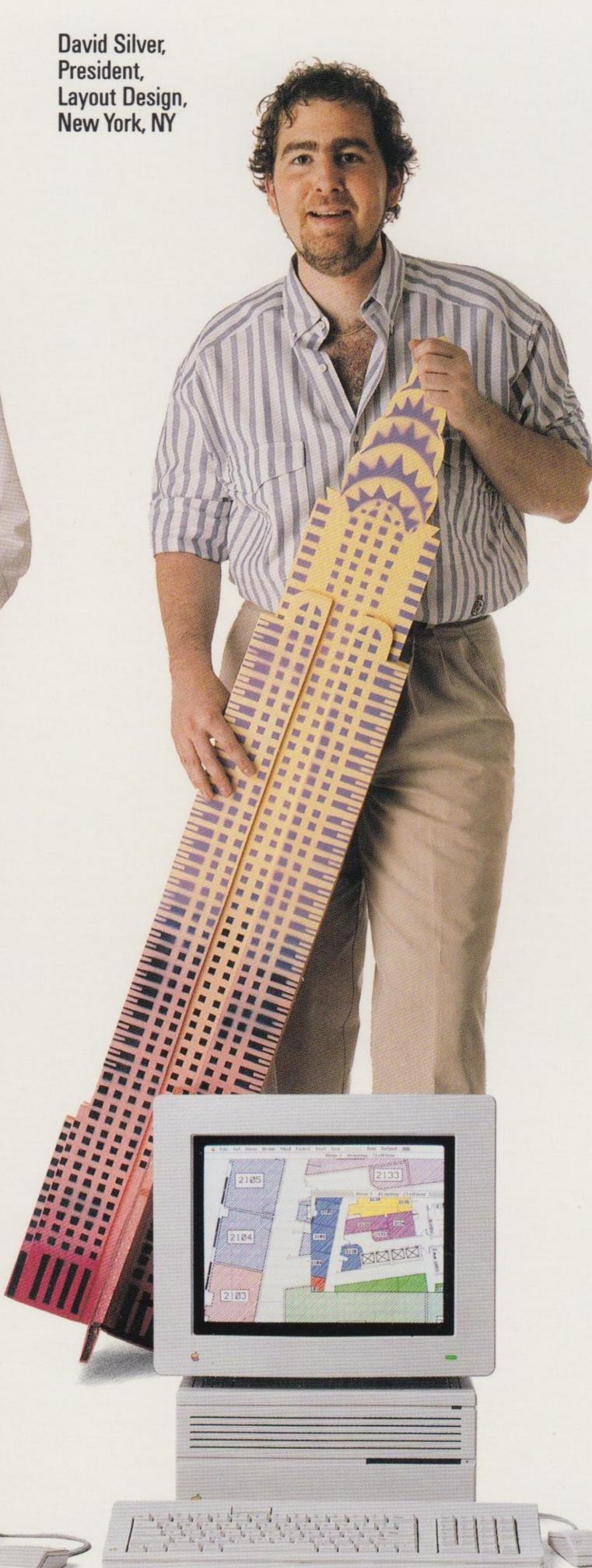
Apple FDHD SuperDrive, and an optional bard disk.

Stan Mansfield, Manager of Mechanical **Engineering Operations**, Varian Associates Radiation Division, Palo Alto, CA



One of my clients is 58 years old. He'd never used a computer before. He was terrified when I told him he'd have to use a computer.

But now he can't wait to get to work every day.

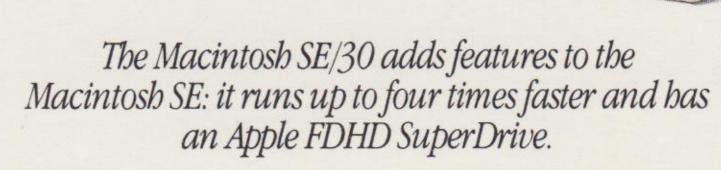


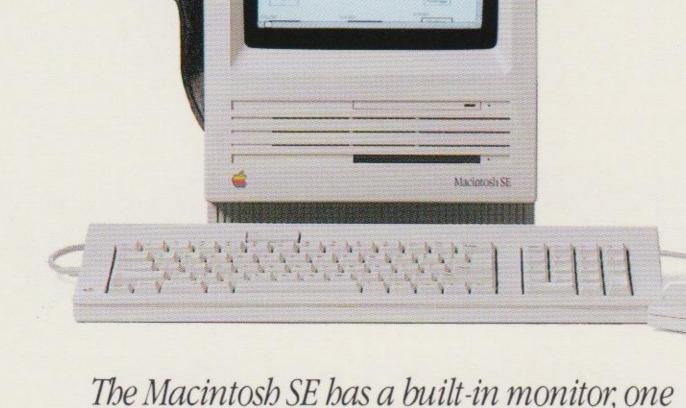
The Macintosh IIci is the highest-performance Macintosh. It features built-in video support, three internal slots, and an Apple FDHD SuperDrive.

In 1985, we bought one Macintosh Plus, and on the very first project we used it to design a 60,000-square-foot office building—floor plans, elevations, and sections. We were surprised that we could do the complete job on this simple, \$3,000 CAD station, but it worked. Even better, we didn't have to go out and hire a bunch of CAD operators. We did it ourselves.

Today we have 32 Macintosh computers, for 33 people, to do everything from site plans to client billing.

John Stark, Partner, Lee, Ruff, Waddle Partnership, Architects, AIA Portland, OR







### Get the idea?

So far you've had a chance to read about what makes Macintosh the ideal choice for all areas of design, and for all the stages of design—from start to finish.

That experience should trigger some interesting ideas about what *you* can do with a Macintosh.

And we just happen to know someone who'd be more than willing to answer any questions you may have: the Apple representative or certified Apple

engineering reseller in your area. He or she will be able to demonstrate many of the products discussed in this bro-



chure, and to show you how to set your designs on a Macintosh—no matter what line of work you're in.

So call us at 1-800-538-9696, ext. 600, for the name and location of the Apple engineering reseller or sales office in your area.

It may turn out to be the best idea you have all day. And that idea can start you on your way to making some history of your own.

### Apple Computer, Inc.

20525 Mariani Avenue, Cupertino, California 95014 (408) 996-1010 TLX: 171-576

Idea people whose photographs appear on the front cover (in case you haven't already guessed): Top row: Aristotle, Nicolaus Copernicus, Antonie van Leeuwenhoek, Leonardo da Vinci, Blaise Pascal. Second row: John Winthrop, James Watt, Charles Babbage, Eli Whitney, Benjamin Franklin. Third row: Alessandro Volta, Elias Howe, Louis Pasteur, Ottmar Mergenthaler, Galileo. Fourth row: George Washington Carver, George Eastman, Thomas Edison, Alfred Nobel, James Dewey Watson. Bottom row: Joseph Strauss, Edith Clark, Charles Eames, Walter Gropius, Buckminster Fuller.

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